

## **Water & Sewer Rate FAQ's**

At its May 5, 2008 meeting, Durham City Council voted to implement rate increases and a new tiered rate structure for City water and sewer customers. After many years of using a uniform rate structure, the City will begin issuing bills for single family residential (SFR) customers using a tiered rate structure. Water and sewer usage (consumption) after July 1, 2008 will be billed at the new rates.

We understand that our customers have many questions regarding the How's, When's, and Whys of the tiered rate implementation. We have developed these "Frequently Asked Questions" to help you understand how these changes will affect you, your family and your business. If you have further questions, please don't hesitate to call Durham One Call at 560-1200 or email us at [newwaterrates@durhamnc.gov](mailto:newwaterrates@durhamnc.gov).

### **What are tiered water rates?**

These are rates designed to encourage efficient water use by charging more, at different tiers or levels, as customers use more water.

### **When will I get my first bill with the new rates?**

Customers billed monthly (primarily non-residential customers) will see the increase in their August 2008 bill. Customers billed bi-monthly (primarily residential) will see the increase in their September 2008 bill.

### **Why are only Single Family Residential (SFR) customers subject to the tiered rate system?**

The key concept behind implementing tiered rate structures for SFRs is that this customer group has the most opportunity to curb or control their water use.

Business/commercial customers have more consistent use of water that does not vary much. Industrial and institutional customers use water in their daily processes and operations; therefore their water use is relatively stable. ([click here for SFR rate table](#))

### **What is the typical increase for residential customers for this year?**

A residential customer whose usage falls into the Super Saver tier (up to 400 cf/month) will pay about \$5.37 more per month, which equals \$10.74 each bi-monthly billing period on their combined water and sewer bill. Research shows that the bulk of Durham's SFR customers will fall into a combination of Tiers 2 and 3. For the SFR customer that uses 800 cf/month (1600 cf/2 months), their bill will increase by approximately \$7.38/month.

### **If I use water in the higher Tiers, will all my water be charged at that amount?**

No. Bills will be calculated so that water used in the lower tiers is charged at that tier. Only the excess or overage will be charged at the higher rates.

### **Will sewer charges be assessed at the tiered rates?**

No. In fact, the sewer usage charge rate did not increase this year. Only the service charges portion of the sewer bill has increased.

**How will commercial customers be billed?**

All non-residential customers, including multi-family residential customers, will be billed at the Tier 3 rate. Service charges will depend the size of the meter providing service. ([click here for monthly rate table](#)).

**Do business customers pay more for water and sewer services than residential users?**

Yes. In addition to having all water charged at the Tier 3 level, customers with larger size meters (a larger meter relates to a larger service line) pay water and sewer service charges that escalate with the size of the meter. ([click here for service charge table](#))

**What was the typical increase for commercial customers for fiscal year 2005?**

The typical commercial customer with 2 inch meter service using 5000 cf/month will pay about \$68.07 more per month. This reflects an increase in the water and sewer service charges for these customers as well.

**Why was a water and sewer rate increase necessary for fiscal year 2009?**

The City has gradually been increasing the water and sewer rates over the past several years in keeping with Council objectives. These increases are not enough to cover the large capital projects that are required for the City to continue to provide both *adequate* and *safe* drinking water for our customers. Among the many water and sewer capital projects are: providing additional finished water storage, adding the first of several supply options and construction/expansion to meet upcoming regulations. For a list of the Capital Improvement Projects, [click here](#).

**Why was the increase so big for this fiscal year (2009)?**

One important factor was that the existing rates did not fully recover the cost of providing the service. For several years, one-time revenues, such as fund balance, and sales of water to other localities provided a subsidy to the rate structure. These one-time revenues are no longer available to the City. Deferral of maintenance and capital improvements to the system were also factors which require attention. Another factor which supported the need for a restructuring of rates was the debt coverage requirements on revenue bonds ([see: What are revenue bonds and why are they issued below](#)) issued to provide for capital needs of the water and sewer systems.

**Were rates raised because of lost revenues due to the drought? Can an extended drought have an effect on the water and sewer rates?**

The answer to the first part of the question is NO. Last year, staff made very conservative estimates for revenue projections, anticipating relatively flat demand for the year. So, the revenue generated, despite having restrictions in place for nine months of the fiscal year, was close to the anticipated level. However, there were many additional drought related expenses not included in the FY '08 base budget and the costs of chemicals, as well as fuel and energy costs for both water and wastewater, have increased significantly. But, the quantity of water used is only one factor in the cost of maintaining quality water and sewer systems. Any significant reduction in revenues, as a result of drought or other circumstances, does not substantially reduce the costs of

keeping the systems “ready to serve” when the faucet is turned on or the toilet is flushed. The water and sewer service charge rate changes reflect this.

### **What do water and sewer service charges pay for?**

#### Service Charges cover:

1. 100 % of the cost to read and maintain meters
2. 100 % of the Customer Billing and Service Division
3. 20 % of Public Works Engineering and Administration
4. 18 % of Department of Water Management Administration
5. 52 % of Water and Sewer Treasury functions (cashiering and collections)
6. 20 % of the Plant Maintenance Division functions
7. 20 % of Water and Sewer Laboratory Services
8. 10 % of the System Rehabilitation Program
9. 10 % of Water and Sewer Line Maintenance
10. 5 % of the Regulatory Compliance Division functions
11. 21 % of General Fund (services provided by other City departments in support of Water and Sewer Fund activities)
12. 47 % indirect costs
13. 15 % Rate Funded Capital Improvement Program (also funded by Capital Facility Fees and Revenue Bonds)
14. 20 % of Debt Service
15. Offset by 100 % of revenues collected from Late and Service Initiation Fees

### **What do water and sewer consumption/usage charges pay for?**

#### Consumption Charges cover

Operating costs not covered by service charges ([see: Service Charges, above](#)) are funded through consumption charges.

1. 100 % of Water Supply and Treatment operations
2. 100 % of Wastewater Reclamation Facility operations
3. 82 % of Department of Water Management Administration
4. 80 % of Public Works Engineering and Administration
5. 90 % of Water and Sewer Maintenance Division functions
6. 95 % of Regulatory Compliance Division functions
7. 90 % of System Rehabilitation Program
8. 80 % Plant Maintenance Division functions
9. 48 % of Water and Sewer Treasury functions (billing and collections)
10. 80 % of Water and Sewer Laboratory services
11. 79 % of General Fund (services provided by other City departments in support of Water and Sewer Fund activities)
12. 53 % indirect costs
13. 80 % Debt Service
14. 85 % of Rate Funded Capital Improvement Program (CIP)
15. Offset by Permit, Assessment and Frontage Fees and related interest

**Was the irrigation rate increased to recover revenues lost during the recent record drought?**

No. The irrigation rate is assessed for water-only accounts that use drinking water solely for irrigation purposes; it increased and set at the Tier 5 level. During a typical spring and summer, Durham's water demand may increase by as much as 25 to 40 %. This extra demand on the system is primarily due to irrigation/landscaping uses. The irrigation rate passes the cost of the extra system demand on to those customers creating the demand.

**Does the City have resources for customers that may not be able to pay their water and sewer bill?**

Yes. The City provides funding for the water and sewer hardship fund, which is administered by the Durham County Department of Social Services. Eligibility generally follows the same guidelines as other County emergency assistance programs. Families with children will qualify based on family size and income and may be referred from the City's customer service staff. For further information, visit Durham County Social Services at **300 N. Duke Street**, or call the Durham County Social Services main number (919) 560-8000. Adult eligibility will also follow the same guidelines as other County emergency assistance programs. Qualifying adults will be either disabled or elderly (62 years or older) and meet income eligibility. Adults may be referred from the City's customer service staff, visit Durham County Social Services at **220 E. Main Street**, or call the Durham County Social Services main number (919) 560-8000. Annually, about \$80,000 in hardship funds are provided under this program. City staff also maintain a list of other agencies that offer help to individuals and families.

**Has the City taken any actions to contain water and sewer costs?**

The City is continually improving services and efficiencies. One area to note would be the efficiencies gained in running Durham's water treatment plants and wastewater reclamation facilities. The City's water and wastewater facilities operate today with 17% fewer employees than were required 10 years ago despite an increase over that period in water treatment capacity from 34 MGD (million gallons per day) to 52 MGD, and an increase in wastewater treatment capacity from 20 MGD to 40 MGD.

**Does Durham use tax money to provide water and sewer services?**

No. Durham, like most municipal water and sewer providers, uses only those charges and fees generated from water and sewer customers to pay for the water and sewer systems. The water and sewer fund is managed as an "enterprise" fund. That is, it is self sufficient as if it were a stand-alone business enterprise.

**Why does the use of "one-time" revenues have an impact on the water and sewer rates?**

One-time revenues that the City once used to subsidize the water and sewer rates are no longer available. These revenues came primarily from use of water and sewer fund balance and from the sale of water to other localities. These revenues must be replaced by current charges and fees to fully recover the costs of providing the service. Also, these one-time revenues do not replace the necessity for current charges and fees to support system expenses, including debt service, as required by the revenue bonds issued by the City for water and sewer capital needs.

**What are revenue bonds and why are they issued?**

Revenue bonds are bonds issued by the City for the express purpose of funding water and sewer capital projects. Capital projects are construction, rehabilitation or replacement projects to the infrastructure of the water and sewer systems. Revenue bonds differ from General Obligation bonds issued by the City in that the City's general tax revenues are not pledged as a potential source to repay the bonds. Because only charges and fees generated by the water and sewer rates are pledged to repay the bonds, City taxpayers as a whole are not burdened by this debt and it does not count as debt against the City's ability to issue General Obligation Bond debt.

**What are revenue bond rate covenants and what is their connection to water and sewer rates?**

As noted above, revenue bonds that are issued to fund water and sewer infrastructure are not backed with City tax revenues. These bonds depend on the charges and fees collected from water and sewer customers. As such, bondholders generally require that the water and sewer rate structure be sufficient to provide for all system costs, including debt service. That is, current charges for services must cover the cost of those services.

As the issuer of the bonds, the City agrees to a process that will assure the rate structure will be raised in order to provide for "coverage" of these costs if revenues drop below expenditures of the system. While water and sewer fund balance can be utilized to provide for a funding gap as a "one-time" revenue source, it cannot be utilized as a permanent source of on-going revenue and does not count as revenue for purposes of these bond rate covenants.

**What are fixed sewer consumption charges – also known as sewer only charges?**

Some customers are "sewer only" customers and do not have meters to read. These customers are charged a fixed fee based on the number of persons in the household. Annually, these customers must send in an affidavit on which they report the number of persons living in the household. If the affidavit is not received, the fixed charge will revert to the highest charge with is for a household size of four or more persons.

Fixed "Sewer Only" Consumption Charge – Billed Monthly (inside rate)	FY2008	FY2009
4 or more persons in household	\$29.52	\$29.52
3 persons in household	\$22.96	\$22.96
1 or 2 persons in household	\$16.40	\$16.40

*The sewer service fee of \$5.71 per month is added to the above sewer only charges for FY09.*

## How many water and sewer customers does Durham have?

### Customer Account Statistics:

Type of Meter Service	Inside City	Outside City
Water & Sewer	68,019	2,434
Sewer Only	424	342
Water Only	1,657	1,179
Water & County Sewer	0	640
Irrigation	1999	103

### Water & Sewer Rate Trivia:

“How is it that water, which is so useful that life is impossible without it, has such a low price – while diamonds, which are quite unnecessary, have such a high one?” – Adam Smith, Scottish philosopher and economist, 1776 (paradox of value)

75% of water utility customers at times buy bottled water at a price up to 1,000 times the price charged for safe tap water.

### Important definitions:

*Cost* refers to the expense of producing and delivering a unit of water.

*Price* refers to the rate charged to a customer for the unit of water delivered. Prices or rates are based on costs because utilities strive to recover their capital and operating expenses.

*Value* is a more ambiguous concept; defined as the relative worth, merit, or importance of an object or thing. According to Oscar Wilde, “Some people know the price of everything and the value of nothing.”

Bi-monthly customer rate table (Single Family Residential) inside-city customers.

Bi-monthly Use Cubic Feet (CF)	Water Rate per <u>100</u> Cubic Feet	Sewer Rate per <u>100</u> Cubic Feet	Water &Sewer Rate per <u>100</u> Cubic Feet
Tier 1 0 – 400 CF	\$1.72	\$3.28	\$5.00
Tier 2 > 400 – 1000 CF	\$1.81	\$3.28	\$5.09
Tier 3 > 1000 – 1600 CF	\$1.98	\$3.28	\$5.26
Tier 4 > 1600 – 3000 CF	\$2.58	\$3.28	\$5.86
Tier 5 Greater than 3000 CF	\$3.87	\$3.28	\$7.15
Irrigation Outdoor Use Rate per 100 Cubic Feet	\$3.87	N/A	N/A

The monthly water service charge is \$5.11 and the sewer service charge is \$5.71 for inside-city customers with a 5/8" meter (most single family residential).

Below is the tiered rate structure for inside-city, non-residential customers, billed monthly.

<b>Monthly Use 100 Cubic Feet (CCF)</b>	<b>Water Rate per 100 Cubic Feet</b>	<b>Sewer Rate per 100 Cubic Feet</b>	<b>Water &amp;Sewer Rate per 100 Cubic Feet</b>
All consumption (same as Tier 3)	\$1.98	\$3.28	\$5.26
Irrigation Outdoor Use Rate per 100 Cubic Feet	\$3.87	N/A	N/A

The monthly service charges are related to meter size and shown below.

**Service Charge Table by Meter Size**

Meter Size	Water Service Charge	Sewer Service Charge
5/8"	5.11	5.71
1"	12.24	13.56
1 1/2"	24.13	26.64
2"	38.39	42.34
3"	83.55	92.05
4"	142.97	157.46
6"	297.47	357.52
8"	428.20	471.42
Greater than 8"	689.66	759.21

Below is the list of Capital Project (Click project for link to City web site and more detail).

<b>Capital Projects</b>		<b>Project Timelines</b>	
<b>Project Title</b>		<b>Start Date</b>	<b>Complete Date</b>
<a href="#"><u>Asbestos Cement Water Main Replacement</u></a>		Jul 2004	Jul 2009
<a href="#"><u>Automated Meter Replacement</u></a>		Jul 2007	Dec 2010
<a href="#"><u>Brown WTP Expansion, Phase 2</u></a>		Jan 2006	Jan 2013
<a href="#"><u>Cary Water System Interconnection</u></a>		Jul 2010	Jun 2013
<a href="#"><u>Enhanced Nitrogen Removal</u></a>		Jul 2008	Jul 2016
<a href="#"><u>Facility Paving</u></a>		Jul 2006	Dec 2008
<a href="#"><u>Finished Water Storage and Pressurization</u></a>		Jul 2004	Sep 2014
<a href="#"><u>Jordan Lake WTP</u></a>		Jul 2007	Jul 2017
<a href="#"><u>Lake Michie &amp; Little River Rehabilitation</u></a>		Jul 2004	Jul 2016
<a href="#"><u>Landfill Road Relocation</u></a>		Jul 2009	Jul 2010
<a href="#"><u>ND &amp; SD WRF Automation Systems Upgrade</u></a>		Jul 2005	Jul 2008
<a href="#"><u>NDWRF Improvements &amp; LF Gas Utilization - Phase 1</u></a>		Jul 2004	Jun 2009
<a href="#"><u>NDWRF Sludge Pad Cover</u></a>		Jan 2009	Jan 2012



<a href="#"><u>Raleigh Interconnection</u></a>	Jan 2006	Dec 2009
<a href="#"><u>Reclaimed Water Systems, Phases 1 &amp; 2</u></a>	Jul 2008	Jul 2018
<a href="#"><u>SDWRF Sludge Pad Expansion</u></a>	Jul 2010	Jul 2013
<a href="#"><u>Sewer Collection System Rehabilitation</u></a>	Dec 2004	Dec 2024
<a href="#"><u>Sludge Dryer</u></a>	Jul 2010	Jul 2014
<a href="#"><u>Southeast Distribution System Expansion</u></a>	Jul 2008	Jun 2011
<a href="#"><u>Southern Reinforcing Main - Phase I</u></a>	Jul 2007	Jul 2010
<a href="#"><u>Southern Reinforcing Main - Phase II</u></a>	Jul 2009	Dec 2012
<a href="#"><u>Teer Quarry Water Supply Project, Phase 2</u></a>	Jul 2004	Jan 2010
<a href="#"><u>Two-Inch Water Main Replacement</u></a>	Jul 2004	Jul 2009
<a href="#"><u>Wastewater Process Rehabilitation</u></a>	Jul 2007	Jul 2016
<a href="#"><u>Water Distribution Study</u></a>	Jul 2009	Dec 2010
<a href="#"><u>Water Distribution System Rehabilitation</u></a>	Dec 2004	Dec 2024
<a href="#"><u>Water Facilities Rehabilitation</u></a>	Dec 2008	Dec 2018
<a href="#"><u>Water Management Facility Expansion</u></a>	Jul 2007	Jul 2011
<a href="#"><u>Water Regulatory Improvements</u></a>	Dec 2007	Jul 2011
<a href="#"><u>Water Supply Facilities Security Improvements</u></a>	Dec 2005	Dec 2010
<a href="#"><u>Water Supply Facilities Security Phase 2</u></a>	Jul 2010	Jun 2013
<a href="#"><u>Water-Future Supply/Source Protection</u></a>	Jul 2004	Jul 2013
<a href="#"><u>Williams WTP Improvements, Phases 5 &amp; 6</u></a>	Jul 2006	Jul 2011